

Using satellite observations of tropospheric NO<sub>x</sub> columns to infer long-term trends in US NO<sub>x</sub> emissions: The importance of accounting for the free troposphere

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#	ARTICLE	IF	CITATIONS
2	Exploiting OMI NO <sub>2</sub> satellite observations to infer fossil-fuel CO <sub>2</sub> emissions from U.S. megacities. <i>Science of the Total Environment</i> , 2019, 695, 133805.	3.9	37
3	Temporal Analysis of OMI-Observed Tropospheric NO <sub>2</sub> Columns over East Asia during 2006–2015. <i>Atmosphere</i> , 2019, 10, 658.	1.0	12
4	Pinpointing nitrogen oxide emissions from space. <i>Science Advances</i> , 2019, 5, eaax9800.	4.7	100
5	Inferring the anthropogenic NO <sub>x</sub> emission trend over the United States during 2003–2017 from satellite observations: was there a flattening of the emission trend after the Great Recession?. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 15339-15352.	1.9	13
6	Tropospheric SO <sub>2</sub> and NO <sub>2</sub> in 2012–2018: Contrasting views of two sensors (OMI and OMPS) from space. <i>Atmospheric Environment</i> , 2020, 223, 117214.	1.9	13
7	Assessing NO <sub>2</sub> Concentration and Model Uncertainty with High Spatiotemporal Resolution across the Contiguous United States Using Ensemble Model Averaging. <i>Environmental Science &amp; Technology</i> , 2020, 54, 1372-1384.	4.6	155
9	Satellite evidence for changes in the NO <sub>2</sub> weekly cycle over large cities. <i>Scientific Reports</i> , 2020, 10, 10066.	1.6	33
10	Satellite isoprene retrievals constrain emissions and atmospheric oxidation. <i>Nature</i> , 2020, 585, 225-233.	13.7	53
11	Disentangling the Impact of the COVID-19 Lockdowns on Urban NO <sub>2</sub> From Natural Variability. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089269.	1.5	144
12	Daily Cropland Soil NO <sub>x</sub> Emissions Identified by TROPOMI and SMAP. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089949.	1.5	15
13	Intercomparison of Magnitudes and Trends in Anthropogenic Surface Emissions From Bottom-Up Inventories, Top-Down Estimates, and Emission Scenarios. <i>Earth's Future</i> , 2020, 8, e2020EF001520.	2.4	54
14	Effect of changing NO <sub>x</sub> lifetime on the seasonality and long-term trends of satellite-observed tropospheric NO <sub>2</sub> columns over China. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 1483-1495.	1.9	135
15	Inferring Changes in Summertime Surface Ozone–NO <sub>x</sub> –VOC Chemistry over U.S. Urban Areas from Two Decades of Satellite and Ground-Based Observations. <i>Environmental Science &amp; Technology</i> , 2020, 54, 6518-6529.	4.6	133
16	Using near-road observations of CO, NO <sub>y</sub> , and CO <sub>2</sub> to investigate emissions from vehicles: Evidence for an impact of ambient temperature and specific humidity. <i>Atmospheric Environment</i> , 2020, 232, 117558.	1.9	16
17	Nitrogen isotopes in nitrate aerosols collected in the remote marine boundary layer: Implications for nitrogen isotopic fractionations among atmospheric reactive nitrogen species. <i>Atmospheric Environment</i> , 2021, 245, 118028.	1.9	10
18	Impact of weather and emission changes on NO <sub>2</sub> concentrations in China during 2014–2019. <i>Environmental Pollution</i> , 2021, 269, 116163.	3.7	39
20	Impacts of Soil NO <sub>x</sub> Emission on O <sub>3</sub> Air Quality in Rural California. <i>Environmental Science &amp; Technology</i> , 2021, 55, 7113-7122.	4.6	40
22	Transboundary transport of ozone pollution to a US border region: A case study of Yuma. <i>Environmental Pollution</i> , 2021, 273, 116421.	3.7	7

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23	New observations of NO <sub>2</sub> in the upper troposphere from TROPOMI. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 2389-2408.	1.2	18
24	Long-term trends in air quality in major cities in the UK and India: a view from space. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6275-6296.	1.9	31
25	Spaceborne Estimation of Volcanic Sulfate Aerosol Lifetime. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033883.	1.2	2
26	Diagnosing air quality changes in the UK during the COVID-19 lockdown using TROPOMI and GEOS-Chem. <i>Environmental Research Letters</i> , 2021, 16, 054031.	2.2	28
28	US COVID-19 Shutdown Demonstrates Importance of Background NO <sub>2</sub> in Inferring NO <sub>x</sub> Emissions From Satellite NO <sub>2</sub> Observations. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL092783.	1.5	38
29	Evaluation of Nitrogen Oxide Emission Inventories and Trends for On-Road Gasoline and Diesel Vehicles. <i>Environmental Science &amp; Technology</i> , 2021, 55, 6655-6664.	4.6	29
30	Analysis of the Anthropogenic and Biogenic NO <sub>x</sub> Emissions Over 2008–2017: Assessment of the Trends in the 30 Most Populated Urban Areas in Europe. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL092206.	1.5	5
32	Comprehensive evaluations of diurnal NO <sub>2</sub> measurements during DISCOVER-AQ 2011: effects of resolution-dependent representation of NO <sub>2</sub> emissions. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 11133-11160.	1.9	7
33	Improved modelling of soil NO <sub>x</sub> emissions in a high temperature agricultural region: role of background emissions on NO <sub>2</sub> trend over the US. <i>Environmental Research Letters</i> , 2021, 16, 084061.	2.2	18
34	COVID-19 Induced Fingerprints of a New Normal Urban Air Quality in the United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034797.	1.2	11
35	A satellite-data-driven framework to rapidly quantify air-basin-scale NO <sub>2</sub> emissions and its application to the Po Valley during the COVID-19 pandemic. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 13311-13332.	1.9	13
36	Tropospheric NO <sub>2</sub> and O <sub>3</sub> Response to COVID-19 Lockdown Restrictions at the National and Urban Scales in Germany. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035440.	1.2	13
37	Urban NO <sub>x</sub> emissions around the world declined faster than anticipated between 2005 and 2019. <i>Environmental Research Letters</i> , 2021, 16, 115004.	2.2	17
38	Biases in air quality models capturing ozone trends at the urban, regional and national scales: Impacts on Relative Response Factors (RRFs). <i>Atmospheric Environment</i> , 2021, 266, 118722.	1.9	2
39	Reductions in nitrogen oxides over the Netherlands between 2005 and 2018 observed from space and on the ground: Decreasing emissions and increasing O <sub>3</sub> indicate changing NO <sub>x</sub> chemistry. <i>Atmospheric Environment: X</i> , 2021, 9, 100104.	0.8	17
40	Spatially and temporally coherent reconstruction of tropospheric NO <sub>2</sub> over China combining OMI and GOME-2B measurements. <i>Environmental Research Letters</i> , 2020, 15, 125011.	2.2	23
41	Impacts of global NO <sub>2</sub> inversions on NO <sub>2</sub> and ozone simulations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13109-13130.	1.9	22
42	Validation of tropospheric NO <sub>2</sub> column measurements of GOME-2A and OMI using MAX-DOAS and direct sun network observations. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 6141-6174.	1.2	31

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44	Nighttime and daytime dark oxidation chemistry in wildfire plumes: an observation and model analysis of FIREX-AQ aircraft data. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16293-16317.	1.9	34
45	Improving predictability of high-ozone episodes through dynamic boundary conditions, emission refresh and chemical data assimilation during the Long Island Sound Tropospheric Ozone Study (LISTOS) field campaign. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16531-16553.	1.9	5
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47	Long-term trends in urban NO <sub>2</sub> concentrations and associated paediatric asthma incidence: estimates from global datasets. <i>Lancet Planetary Health</i> , The, 2022, 6, e49-e58.	5.1	95
48	Large discrepancy between observed and modeled wintertime tropospheric NO <sub>2</sub> variabilities due to COVID-19 controls in China. <i>Environmental Research Letters</i> , 2022, 17, 035007.	2.2	4
49	Sector-Based Top-Down Estimates of NO <sub>x</sub> , SO <sub>2</sub> , and CO Emissions in East Asia. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	21
50	Decadal Variabilities in Tropospheric Nitrogen Oxides Over United States, Europe, and China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, e2021JD035872.	1.2	14
51	Human-Health Impacts of Controlling Secondary Air Pollution Precursors. <i>Environmental Science and Technology Letters</i> , 2022, 9, 96-101.	3.9	22
52	Drivers of 2013–2020 ozone trends in the Sichuan Basin, China: Impacts of meteorology and precursor emission changes. <i>Environmental Pollution</i> , 2022, 300, 118914.	3.7	29
53	Deep Learning to Evaluate US NO <sub>x</sub> Emissions Using Surface Ozone Predictions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	6
54	Stereoscopic hyperspectral remote sensing of the atmospheric environment: Innovation and prospects. <i>Earth-Science Reviews</i> , 2022, 226, 103958.	4.0	19
55	Changes in the ozone chemical regime over the contiguous United States inferred by the inversion of NO <sub>x</sub> and VOC emissions using satellite observation. <i>Atmospheric Research</i> , 2022, 270, 106076.	1.8	12
56	The Impact of Springtime-Transported Air Pollutants on Local Air Quality With Satellite-Constrained NO <sub>x</sub> Emission Adjustments Over East Asia. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	14
58	Quantifying urban, industrial, and background changes in NO <sub>2</sub> during the COVID-19 lockdown period based on TROPOMI satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4201-4236.	1.9	16
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60	Rapid rise in premature mortality due to anthropogenic air pollution in fast-growing tropical cities from 2005 to 2018. <i>Science Advances</i> , 2022, 8, eabm4435.	4.7	31
61	Unraveling pathways of elevated ozone induced by the 2020 lockdown in Europe by an observationally constrained regional model using TROPOMI. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 18227-18245.	1.9	25

